COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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December 31, 2007

TO: Each Supervisor

FROM: Donald L. Wolfe
Director of Public Works

BOARD MOTION OF OCTOBER 16, 2007
AGENDA ITEM 47
WATER CONSERVATION REPORT

Water supplies serving the County of Los Angeles are being drastically impacted. Drought, environmental concerns, climate changes, and an ever increasing population are straining the abilities of water providers to meet expected demand. It is imperative that all residents of the County of Los Angeles practice water conservation in their daily lives. Likewise, it is just as imperative that the County of Los Angeles take measures now to stretch our limited water supplies further.

Federal Judge Oliver Wanger issued his decision on December 14, 2007, ordering cuts in water deliveries from the State Water Project to protect the Delta smelt. We are working with all local State Water Contractors and the State to determine the impact on the County of Los Angeles.

On October 16, 2007, your Board requested Public Works to prepare a report addressing several water conservation issues confronting the County. The attached report provides the requested information. The following is a brief summary of its contents.

Drought Tolerant Landscaping Ordinance

The Board extended the deadline for this portion of the report for an additional 30 days at its October 23, 2007, meeting. The Department of Regional Planning has taken the lead on preparing a zoning ordinance for the Board's consideration. Public Works is providing support for this effort.

Los Angeles County Water Conservation Codes

There are three separate County ordinances addressing water conservation. These codes are sufficient as written to achieve meaningful water conservation.

Water Conservation at County Facilities

There are a variety of efforts underway at County facilities to conserve water. Some facilities have converted to irrigating with recycled water rather than potable. The County Office of Water Recycling is working with affected departments to develop and implement a strategic plan for converting all County facilities to using recycled water for nonpotable purposes. This is one of 27 recommendations from the Recycled Water Task Force that the Board approved in January 2007.

Public Works administers the Smart Gardening Program, which teaches residents various gardening techniques that reduce water usage, reduce yard waste, and achieves plant growth with minimal fertilization. Public Works will conduct workshops with other County departments to present these concepts with the intent that they be implemented at all County facilities.

Public Works will coordinate with other affected County departments to provide more specific recommendations to be implemented at County facilities where warranted.

Status of Integrated Regional Water Management Plans

There are three Integrated Regional Water Management Plans (IRWMP) that affect the County of Los Angeles: the Antelope Valley IRWMP, the Greater Los Angeles County IRWMP, and the Upper Santa Clara River Watershed IRWMP. The Board has adopted both the Antelope Valley and the Greater Los Angeles County IRWMPs. We are working to complete the Upper Santa Clara River Watershed IRWMP by May 2008, and submit it for your adoption by June 2008. Public Works will continue to actively participate and represent the County's interests in all IRWMP processes.

Update on Requiring Drought Tolerant Landscaping at New County Facilities

Public Works has been implementing the Board's directive to require drought tolerant landscaping at all new County facilities, where feasible, as of February 2007. A list of the facilities that have included drought tolerant landscaping in their design is contained in the report.

Other Potential Water Conservation Measures

There are numerous water conservation measures that were included in the October 23, 2007, reports to the Board on LEED certification for County facilities and Low Impact Design for County facilities and new development in unincorporated areas of the County. Implementing these provisions as directed by the Board at its October 23 meeting will result in additional water being conserved.

If you have any questions, please call me or your staff may contact Dean Efstathiou, Chief Deputy, at (626) 458-4001.

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Attach.

cc: Chief Executive Office (Bill T Fujioka, Lari Sheehan)
Executive Office
Internal Services Department (Howard Choy)
Department of Parks and Recreation
Department of Regional Planning (Bruce McClendon, Jon Sanabria, Ron Hoffman, Paul McCarthy, Ron Meneses, Karen Simmons)

COUNTY OF LOS ANGELES
BOARD OF SUPERVISORS

Water Conservation Efforts

Within the

County of Los Angeles

Report Requested October 16, 2007
Board Order Number 47

At its meeting on October 16, 2007, the Board directed the Director of Public Works, working with the Director of Regional Planning and County Counsel, to take the following actions and report back to the Board within 60 days:

1. Prepare an ordinance for the Board amending Los Angeles County's Zoning Ordinance and building codes to require that drought-tolerant and native species be required in all new developments in unincorporated Los Angeles County.
2. Identify conservation codes already in place, how these codes are enforced, as well as possible recommendations for revisions or additions to make water conservation more effective.
3. Report on what County facilities can do to step up water conservation programs and reduce water use, particularly as it relates to landscaping and irrigation, and how the County's Smart Gardening program can be adapted to County grounds and parks.
4. Provide a status report on the Integrated Regional Water Management Plan (IRWMP) efforts and what projects have been identified to reduce water use throughout the County IRWMP region.
5. Provide an update on the Board Order Number 17 from January 16, 2007, Board meeting, on what has happened since its adoption in relation to requiring drought-resistant landscaping in all new County facilities wherever feasible.
6. Identify any other potential water conservation measures.

ITEM 1 – DROUGHT-TOLERANT LANDSCAPING ORDINANCE

Prepare an ordinance for the Board amending Los Angeles County's Zoning Ordinance and building codes to require that drought-tolerant and native species be required in all new developments in unincorporated Los Angeles County.

At its meeting on October 23, 2007, the Board took action on the Green Building Report and, among other things, incorporated the previous request for a drought-tolerant landscaping ordinance into the various ordinance amendments that they requested to be submitted to the Regional Planning Commission within 90 days as part of the Green Building initiative.

The drought-tolerant landscaping requirements will be incorporated into the zoning ordinance. The zoning ordinance regulates ministerial actions and discretionary land use permits for new development and provides the County the flexibility and discretion it needs to effectively implement these landscaping requirements.

Regional Planning has taken the lead on preparing the drought-tolerant landscaping ordinance. The current schedule anticipates presenting the ordinance to the Regional Planning Commission and opening the public hearing

on January 23, 2008. The schedule provides for the possibility of bringing the ordinance back to the Regional Planning Commission later in the spring of 2008 if any revisions are requested. The intent of this ordinance is to reduce the amount of potable water used for landscape irrigation.

ITEM 2 – SUMMARY OF LOS ANGELES COUNTY WATER CONSERVATION CODES

> Identify conservation codes already in place, how these codes are enforced, as well as possible recommendations for revisions or additions to make water conservation more effective.

Appendix A contains a table summarizing the three Los Angeles County Code provisions addressing water conservation. The code provisions are sufficient as written and do not need to be revised or amended. Enforcement, however, is nonexistent on two of the three ordinances.

ITEM 3 – WATER CONSERVATION AT COUNTY FACILITIES

> Report on what County facilities can do to step up water conservation programs and reduce water use, particularly as it relates to landscaping and irrigation, and how the County's Smart Gardening program can be adapted to County grounds and parks.

There is a variety of water conservation measures already used at County facilities. The type of measures depends on the type of facility. The Department of Parks and Recreation has made significant progress in reducing its usage of potable water by converting some of its facilities to recycled water for irrigation. Parks and Recreation recycled water irrigation amounts to approximately 2,000 acre-feet annually. One acre-foot is sufficient to meet the needs of two households in Los Angeles County. Other County facilities also utilize recycled water for irrigation, including the Vector Control Offices in Santa Fe Springs, the County Library in Norwalk, and the County Registrar-Recorder Office in Norwalk.

The Los Angeles County Office of Water Recycling is implementing the recycled water recommendations approved by the Board in January 2007. These recommendations include working with affected departments to develop and implement a strategic plan for converting County facilities to using recycled water for nonpotable purposes wherever feasible. The Office is also working to increase the use of recycled water in groundwater recharge facilities owned and operated by the Department of Public Works.

Public Works also manages the County's Smart Gardening Program. The Program's main objective is to reduce the disposed amount of residential yard waste. It promotes environmental practices related to composting, grass recycling, fire-wise gardening, and water-wise gardening. Smart Gardening

practices are taught to residents through workshops at the Program's 11 Smart Gardening Learning Centers and at off-site locations such as parks in coordination with cities. Outreach is also conducted at regional events such as the Los Angeles County Fair.

Public Works is partnering with several cities to develop new Learning Centers in 2008 and 2009 to exemplify Smart Gardening techniques. These centers will include numerous species of native and drought-tolerant plants, surfacing that allows for the collection and percolation of rain water, drip irrigation, groundcover, use of compost, and the use of recycled materials for structures such as recycled plastic lumber. The new centers will be open to the public and include interpretive signs and plant identification for residents.

Many of the Smart Gardening techniques are already utilized at County facilities. Greater use of these techniques could be made, however, Public Works will conduct workshops with Internal Services Department, the County's Energy and Environmental Policy Team, and affected County departments to present and discuss Smart Gardening techniques to be applied to landscaping and irrigation at County facilities. Appendix B contains a more detailed description of current and potential future water conservation efforts at County departments.

ITEM 4 - STATUS OF INTEGRATED REGIONAL MANAGEMENT PLANS

Provide a status report on the Integrated Regional Water Management Plan (IRWMP) efforts and what projects have been identified to reduce water use throughout the County IRWMP region.

There are three separate Integrated Regional Water Management Plans (IRWMPs) currently being prepared that affect the County of Los Angeles. These are the Antelope Valley IRWMP, the Greater Los Angeles County IRWMP, and the Upper Santa Clara River Watershed IRWMP. Each IRWMP is intended to guide water resources projects for the areas in which they have been developed. All have been or are being developed with extensive stakeholder participation. The Antelope Valley and Greater Los Angeles County IRWMPs have been adopted by the Board. The Upper Santa Clara River Watershed is currently being developed. Public Works will continue to actively participate in all IRWMP processes. Appendix C provides additional information on these efforts as well as a list of the water conservation projects each contains.

ITEM 5 – UPDATE ON REQUIRING DROUGHT-TOLERANT LANDSCAPING AT NEW COUNTY FACILITIES

Provide an update on the Board Order Number 17 from January 16, 2007, Board meeting on what has happened since its adoption in relation to requiring drought-resistant landscaping in all new County facilities wherever feasible.

The Project Management Divisions within Public Works include requirements in their Requests for Proposals for landscaping at new County facilities that the landscape architects provide a planting scheme that is drought-tolerant. The extent of the feasibility of including drought-tolerant landscaping is project specific. Increasing drought-tolerant and native plantings is a key element of the plan review process within Public Works. Thirty-seven facilities have included drought-tolerant or native species in their landscaping plans since February 15, 2007. Appendix D contains the list of these projects.

ITEM 6 – OTHER POTENTIAL WATER CONSERVATION MEASURES

Identify any other potential water conservation measures.

Numerous water conservation measures were suggested in the reports submitted to the Board on October 23, 2007, entitled, "Presentation to the Board of Supervisors to Improve Energy Efficiency and Combat Global Warming" and "Low Impact Development for the Unincorporated Areas of Los Angeles County." Implementing these measures would increase the amount of local water available to residents within the County of Los Angeles and help stabilize water supplies.

Appendix A

Summary of County of Los Angeles Water Conservation Codes

SUMMARY OF COUNTY ORDINANCES AND CODES FOR WATER CONSERVATION, WATER-EFFICIENT LANDSCAPING, AND WATER WASTING

County Code Section	Year Established	Title	Does the Code/Ordinance include a Penalty Provision?	Amount of Penalty (first/subsequent infractions)	Does the Code/Ordinance Apply to New Developments, Existing Developments, or Both?	Summary	Status of Implementation or Enforcement
Title 11 - Health and Safety, Chapter 11.38, Part 4	1991	Water Conservation Requirements for the Unincorporated Los Angeles County Area	Yes	$100/$500	Existing	Prohibits hose watering or washing down of sidewalks, walkways, driveways, or other paved surfaces; prohibits watering lawn or landscaping between 10 a.m. and 5 p.m. or watering lawn or landscaping more than once per day; prohibits watering such that runoff occurs due to incorrectly directed or maintained sprinklers; requires property owners to inspect hoses, faucets, and sprinkler systems for leaks and to fix all leaks as soon as is reasonably practicable; prohibits washing motor vehicles, boats, or trailers without the us of a hand-held bucket or hose equipped with an automatic shutoff nozzle; prohibits restaurants, hotels, cafeterias, and cafes from serving customers water unless specifically requested; and prohibits use of water to clean, fill, or maintain decorative fountains without a recycling system.	Respond to Reported Violations
Title 20 - Utilities, Chapter 20.09	1992	Maintaining Existing Water Efficient Landscapes	Yes	$100/$500	Existing	Encourages landscape irrigation audits every five years for existing landscaped areas within the County; prohibits water wasting through inefficient and inappropriate landscape irrigation; all water purveyors are to be provided with the site address and landscape irrigation audit schedules for all landscaped areas within their service area required under Chapter 71, Title 26 (Building Code); requires all water purveyors to provide the Director of Public Works with copies of water consumption for the previous 12 months at each site subject to an audit under the Building Code; requires property owners to conduct a water audit for sites with water consumption greater than the maximum applied water allowance as specified in the Building Code; and allows a $50 property tax assessment per metering point for all sites subject to water audits for enforcement of these provisions.	Design Standards Enforced
Title 26 - Building Code, Chapter 71	1999	Water-Efficient Landscaping	No	N/A	New	For all landscape permits for projects with landscaped areas exceeding 2,500 square feet, requires submission of a landscape documentation package including the following: water conservation concept statement, calculation of maximum applied water allowance, calculation of estimated applied water use, calculations of estimated total water use, landscape design plan, irrigation design plan, irrigation schedules, maintenance schedules, landscape irrigation audit schedule, grading design plan, soil analysis, certificate of substantial conformance, and effective precipitation disclosure statement; requires installation of separate water irrigation systems (dual distribution systems) to allow for the current and future use of recycled water where recycled wtaer is currently available or will be available in the foreseeable future; requires information to be provided to owners of all new, single-family residential homes regarding the design, installation, and maintenance of water-efficient landscapes, and provides that at least one model home is landscaped in each project consisting of eight or more homes to demonstrate the principles of water-	Design Standards Enforced

Appendix B

Water Conservation at County Facilities

I. Public Works Smart Gardening Program

Public Works Smart Gardening Program's main objective is to reduce the amount of residential yard waste disposed. It promotes environmental practices related to composting, grass recycling, fire-wise gardening, and water-wise gardening. Smart Gardening practices are taught to residents through workshops at the Program's 11 Smart Gardening Learning Centers and at off-site locations such as parks, in coordination with cities. Outreach is also conducted at regional events such as the Los Angeles County Fair.

Residents are taught how to implement Smart Gardening practices and how they are beneficial to yards and gardens. For water-wise gardening, residents are taught how they can conserve water use with the proper selection of plants, proper irrigation, use of compost, installation of groundcover, and the practice of hydrozoning (the grouping of plants with similar water needs).

The composting session of the workshop explains how composting diverts yard waste from landfills and provides the soil with an excellent soil conditioner. Compost helps the soil attract earthworms, adds nutrients, and retain water thus reducing water usage.

The benefits of grass recycling, the mowing of grass without a grass catcher, are also taught at the workshops. Grass clippings are allowed to decompose on the lawn, release nutrients back into the ground, and help retain soil moisture thus reducing water usage.

Public Works is partnering with several cities to develop new Learning Centers in 2008 and 2009 to exemplify Smart Gardening techniques. These centers will include numerous species of native and drought tolerant plants, surfacing that allows for the collection and percolation of rain water, drip irrigation, groundcover, use of compost, and the use of recycled materials for structures, such as recycled plastic lumber. The new centers will be open to the public and include interpretive signs and plant identification for residents.

I. Current Water Conservation Measures at County Facilities

As part of its water conservation and recycling efforts, the County does the following:

- Utilizes recycled wastewater at numerous County facilities, including Bonelli Regional Park, Schabarum Regional Park, Vector Control Offices in Santa Fe Springs, County Library in Norwalk, and County Recorders Office in Norwalk.

- Conducts free water use onsite evaluations for Los Angeles County Waterworks Districts' customers to identify opportunities to conserve water (completed 2,500 evaluations since last year).
- Conducts a public education program for conservation of water.
- Conducts grass recycling at County parks.
- Operates spreading grounds and seawater intrusion barriers.
- Analyzes merits of additional conservation measures that may be implemented.
- Implements watershed management practices that include retaining stormwater flows and minimizing impervious surfaces to maximize groundwater basin recharge.
- Uses tiered-water rate structures for several Waterworks Districts.
- Administers a Water Wasting Advisory Notice Program to encourage compliance.
- Prepared new ordinance to further reduce water use for new developments using BMPs and native, drought-tolerant vegetation.
- Established the Energy and Environmental Policy Team in January 2007 to among other things, develop and implement water conservation efforts.
- Established the Office of Water Recycling to increase use of recycled water in the County.

II. Application of Smart Gardening Techniques

Public Works will conduct workshops with ISD, the Policy Team, and respective County departments to present and discuss Smart Gardening techniques to be applied to landscaping and irrigation at County facilities. These techniques include the following:

- Use compost at landscaped County facilities such as headquarters, road medians, gardens, and parks to enhance soil quality, retain soil moisture, reduce need for water, and promote the use to residents.
- Implement the practice of grass recycling at any facilities which have not yet begun the practice to enhance soil quality and reduce need for water.
- Adjust irrigation schedules for watering to be done at night or in the early morning to reduce evaporation if not already done.
- Adjust irrigation time and frequency as needed due to the weekly weather, season, and rainy periods.
- Implement routine inspections of irrigation systems for leaks and promptly repair any damages.
- Begin installing drip irrigation systems for new facilities/parks, when re-landscaping or when updating the existing facility/park irrigation system.

- Use mulch at County facilities such as road medians, rights of ways, headquarters, gardens, and parks to reduce weed growth, enhance the facility's appearance, promote the use to residents, and reduce the need for water.
- Require landscaping project to use only drought tolerant and native species at County facilities/parks.
- When updating landscaping at County facilities/parks, practice hydrozoning to group plants with similar watering needs.

Appendix C

Integrated Regional Water Management Plans
Water Conservation Projects

Following is a brief summary of the status and next steps for each IRWMP.

Antelope Valley IRWMP

Status

- Adopted Antelope Valley IRWMP on December 4, 2007.
- Formed a seven-member Leadership Team to implement Antelope Valley IRWMP projects.
- Qualified to submit a Proposition 50, Round 2, Step 2 application with the highest score among Southern California applicants.
- Collected $775,000 in local funding to prepare the IRWMP and grant applications.
- Developed quantifiable planning targets between 2010 and 2035.
- Held 19 stakeholder meetings.

Next Steps

- Prepare and submit the Proposition 50, Round 2, Step 2 application by January 15, 2008.
- Prepare revised governance structure MOU to implement the IRWMP.
- Continue and expand public outreach

Greater Los Angeles County IRWMP

Status

- Adopted Greater Los Angeles County IRWMP on December 13, 2006.
- Secured $1.5 million Proposition 50 planning grant.
- Received a $25 million Proposition 50, Chapter 8, Round 1 grant.
- Collected $950,000 in local funding.
- Implemented an interim governance structure.
- Developed conceptual capture and treatment planning tools.
- Collected nearly 2,000 projects in IRWMP database.
- Developed quantifiable targets for the next 20 years.
- Held over 24 public stakeholder workshops.

Next steps

- Manage $25million Proposition 50, Chapter 8, Round 1 grant:
    - Flood Control District as the grantee to execute grant contract with California Department of Water Resources (DWR).
    - Flood Control District to finalize and execute MOU with sub-grantees (project proponents).
    - Flood Control District to manage grant contract with DWR and sub-grantees.
- Finalize project prioritization framework.

- Execute governance structure MOU and operating guidelines to form the Regional Water Management Group to manage and implement the Greater Los Angeles County IRWMP.
- Update Greater Los Angeles County IRWMP to address new requirements and planning gaps.
- Develop capital improvement program framework by sub-region.
- Continue and expand outreach, especially to disadvantaged communities.
- Apply for a Proposition 84 planning and implementation grant upon release of grant guidelines.

Upper Santa Clara River Watershed IRWMP

Status

- Established the Regional Water Management Group to oversee preparation of the Upper Santa Clara River Watershed IRWMP.
- Completed drafting five of ten sections of the Santa Clara River Watershed IRWMP.

Next Steps

- Complete and adopt the Upper Santa Clara River Watershed IRWMP by April 2008 to qualify for Proposition 84 funding.
- Apply for a Proposition 84 implementation grant upon release of grant guidelines.

Following is the list of water conservation projects contained in each IRWMP.

Antelope Valley Integrated Water Management Plan
Water Conservation Projects

- Los Angeles County Waterworks District No. 40's Water Conservation School Education Program, Ultra Low Flush Toilet (ULFT) Change Out Program, and Waste Water Ordinance
- Los Angeles County Waterworks District No. 40 and Palmdale Water District's ET-Based Controller Program
- Leona Valley's Precision Irrigation Control System
- Palmdale Water District's Water Conservation Demonstration Garden

POTENTIAL WATER CONSERVATION PROJECTS

Project	Description	Estimated Cost (Milion Dollars)	Water Conservation Benefit Acre-Feet/Year
DAM WATER CONSERVATION PROJECTS			
Big Tujunga Dam Seismic Retrofit	To construct structural modifications to Big Tujunga Dam to meet State Division of Safety of Dams (DSOD) seismic and spillway criteria and allow for higher reservoir pool for surface water storage without risk of seismically induced failure. The project will also include new valves (including one low-flow valve to provide releases to benefit the Santa Ana Sucker, an endangered fish located downstream) and control systems to provide for the conjunctive management of additional conserved storm water available with the higher reservoir pool allowed by DSOD .	100	4500
Santa Anita Dam Seismic Rehabilitation	Construct structural modifications to Santa Anita Dam to meet State Division of Safety of Dams seismic and spillway criteria to allow a higher reservoir pool for surface water storage without risk of seismically induced failure.	90	2000
Morris Dam Water Supply Enhancement	Construct structural modifications to the inlet/outlet works and control systems to facilitate a lower operational reservoir pool for increased water conservation.	13	1900
Big Tujunga Dam Spillway Dam	Construct a rubber dam within the spillway to increase the maximum storage capacity of the reservoir.	2	240
San Gabriel Dam Spillway Dam	Construct a rubber dam within the spillway to increase the maximum storage capacity of the reservoir.	3	2200
Cogswell Dam Spillway Dam	Construct a rubber dam within the spillway to increase the maximum storage capacity of the reservoir.	2	600
Puddingstone Dam	Construct structural modifications to Puddingstone Dam to meet State Division of Safety of Dams seismic criteria to allow a higher reservoir pool for surface water storage without risk of seismically induced failure. The project will also include modification to the Frank G. Bonelli Regional park necessary to maintain recreational uses of the reservoir at the new reservoir level.	50	3000
	TOTAL	**260**	**14440**
DEBRIS DAM WATER CONSERVATION PROJECTS			
Big Dalton Debris Dam	Construct structural modifications to the Big Dalton Debris Dam embankment to meet State Division of Safety of Dams seismic and spillway criteria to allow a reservoir pool for surface water storage without risk of seismically induced failure.	9	200
Little Dalton Debris Dam	Construct structural modifications to the Little Dalton Debris Dam embankment to meet State Division of Safety of Dams seismic and spillway criteria to allow a reservoir pool for surface water storage without risk of seismically induced failure.	9	230
Sawpit Debris Dam	Construct structural modifications to the Sawpit Debris Dam embankment to meet State Division of Safety of Dams seismic and spillway criteria to allow a reservoir pool for surface water storage without risk of seismically induced failure.	9	150
Santa Anita Debris Dam Seismic Rehabilitation	Construct structural modifications, including a new spillway and outlet tower, to Santa Anita Debris Dam to meet State Division of Safety of Dams seismic and spillway criteria to allow a reservoir pool for surface water storage without risk of seismically induced failure.	9	120
	TOTAL	**36**	**700**
SPREADING GROUNDS PROJECTS			
Tujunga Spreading Grounds Improvements	Increase the capacity and efficiency of the Tujunga Spreading Grounds, including future plans for the full use of the basins. New intakes to include Pacoima Diversion flows.	16	4,200
Lopez Spreading Grounds Improvements	Increase infiltration, modernize operations.	6	500
Pacoima Spreading Grounds	Increase infiltration, improved capacity, and relocated headworks including rubber dam replacement of radial gate.	10	1200
Santa Anita SG Improvements	Modernize, increase storage capacity, and optimize percolation rates by reconfiguring the basins.	6	500
San Gabriel Cyn SG rubber dam	Construct a rubber dam to divert water to basin 1 and 2 as well as add in river storage and percolation.	7	1200
Eaton SG Improved Intake	Install a rubber dam to divert more water into Eaton SG.	3	300
Big Dalton SG Improvements	Reconfigure the spreading grounds to optimize percolation rates	3	300
Rio Hondo SG Sediment Removal	Remove approximately 350,000 CY of accumulated sediment from Basins 1E through 7E. Removal would be done in three phases due to traffic considerations. Sediment would be hauled to either Puente Hills Landfill or Manning Pit, due to alligator weed quarantine restrictions.	10	2400
San Gabriel Coastal SG Sediment Removal	Remove approximately 121,000 CY of accumulated sediment from Basins 1, 2 and 3. Removal would be done over a 12-month period due to traffic considerations. Sediment would be hauled to either Puente Hills Landfill or Manning Pit, due to alligator weed quarantine restrictions.	4	820

SPREADING GROUNDS PROJECTS (cont.)			
Project	**Description**	**Estimated Cost (Million Dollars)**	**Water Conservation Benefit Acre-Feet/Year**
Walnut Creek SG Sediment Removal	Drain the facility and remove silts deposited in the bottom of the basin.	4	300
Buena Vista SG Sediment Removal	Drain the facility and remove silts deposited in the bottom of the basin.	4	500
SCR South Rubber Dam No. 1 and SG	Install 20' Rubber Dam located under the pedestrian bridge. Adjacent to SCR South Fork, flows would be directed into small spreading basins. (Approx. 14 acres)	6	330
SCR South Rubber Dam No. 2	Install 450' Rubber Dam located on existing drop structure No. 2	6	330
SCR South Rubber Dam No. 3	Install 450' Rubber Dam located on existing drop structure No. 3	6	180
SCR South Rubber Dam No. 4	Install 450' Rubber Dam located on existing drop structure under Valencia Blvd. Bridge.	6	340
SCR Rubber Dam No. 1	Construct Drop Structure D/S of Bouquet Canyon Road Bridge. Install 400' Rubber Dam to pond water for in river recharge.	9	230
Newhall Creek In-River SG	Excavate to widen the river for an in-river spreading grounds using earthen levees. (Approx. 5 acres) Easement needed.	6	70
Placerita Creek Off-River SG	Build recharge facility and diversion structure. Adjacent to the creek, flows would be diverted from the creek and SCR South Fork into small spreading basins. (Approx. 17 acres) Easement needed.	15	220
Upper San Francisquito SG	Build earthen levees in the river to direct flows to either bank for recharge. Large flows would wash out levees. (Approx. 54 acres) Easement needed.	10	700
Lower San Francisquito SG	Build recharge facility and diversion. Redirect flows to the west bank and property adjacent to river. Excavate basins to recharge flows from river. Earthen diversion would wash out during major storms and need to be rebuilt. (Approx. 47 acres) Easement needed.	20	570
SCR In-River SG No. 1	Build levees to redirect flows to the outside banks of the river, the center low flow would wash out first in higher flows. (Approx. 61 acres) Easement needed.	10	550
SCR Off-River SG	Build recharge facility and diversion. Acquire property u/s of Whites Canyon Rd crossing on south bank (Approx. 53 acres). Easement needed.	35	670
SCR In-River SG No. 2	Build levees to redirect flows to the outside banks of the river, the center low flow would wash out first in higher flows. (Approx. 18 acres) Easement needed.	10	220
SCR SG	Build earthen levees in river to slow down flow and recharge bank to bank. Create a diversion levee to wash out during higher flows to minimize damage to proposed levees. Acquire adjacent property on south bank (Approx. 86 acres) and build off river recharge facility. Easement needed.	50	1,040
Dominguez Gap Westside Improvements	Install vertical drains to optimize percolation.	3	500
Spreading Ground Telemetry Expansion Project	Incorporate seven (7) additional spreading ground facilities into the existing telemetry system.	2.5	4750
Hansen SG Basin Improvement and Intake Modification	To modernize and optimize the facility's configuration for enhancing recharge capacity and efficiency for ground water replenishment of the San Fernando Basin	16	1200
	TOTAL	**283.5**	**24,120**
OTHER WATER CONSERVATION PROJECTS			
Strathern Gravel Pit	Based on the project concept described in the Sun Valley Watershed Management Plan, to convert an existing gravel pit to a multipurpose facility dedicated for stormwater retention, treatment, and delivering treated stormwater for groundwater recharge in the San Fernando Basin.	8	500
Rio Hondo/SG pipeline	Construct a pipeline between the two spreading grounds to better manage the 2500 acre-foot water conservation pool behind Whittier Narrows Dam.	7	1400
Devil's Gate Water Conservation Project	Establish a water conservation pool behind Devil's Gate Dam and pump the water stored to other spreading facilities.	16	1500
Whittier Narrows Dam	Modify operating plan for dam to increase storage for water conservation.	8	2900
Hansen Dam	Modify operating plan for dam to increase storage for water conservation.	4	20500
Sun Valley Watershed Management Plan	Implement multiuse projects within the Sun Valley Watershed to alleviate flooding and improve groundwater recharge	172	8130
Cloud Seeding	This project involves introducing precipitation enhancing agents into the atmosphere at various locations within the County in order to augment rainfall by an estimated 10-20 percent.	1	4500
Gaging Station Improvements	By improving the accuracy of the information received from the gaging stations, we will be able to track low flow storm runoff to better monitor and activate the spreading grounds earlier to conserve these flows.	1	10000
Bull Creek Diversion/Rubber Dam and Pipeline	Install a rubber dam in Bull Creek to divert flows into the soft-bottom retention basin and convey post-storm water stored in the basin to East Canyon Channel by constructing a 9000 foot pipeline. The water will then flow downstream to be recharged at Pacoima Spreading Grounds.	8	800
	TOTAL	**225**	**50,230**

SEAWATER BARRIER PROJECTS			
Project	**Description**	**Estimated Cost (Milion Dollars)**	**Water Conservation Benefit Acre-Feet/Year**
Alamitos Seawater Barrier Condition Assessment and Resulting Projects	Perform a detailed condition assessment of the barrier water supply facilities and provide project recommendations for repairs, improvements, and preventative measures. Typical projects could include repair, replacement, and/or protection of pipelines, valves, and other appurtenances.	1.5	870
Alamitos Seawater Barrier Well Rehabilitation and Telemetry System	Monitor, adjust, repair and rehabilitate all barrier injection wells.	3.5	360
Dominguez Gap Seawater Barrier Condition Assessment and Resulting Projects	Perform a detailed condition assessment of the barrier water supply facilities and provide project recommendations for repairs, improvements, and preventative measures. Typical projects could include repair, replacement, and/or protection of pipelines, valves, and other appurtenances.	1.5	2400
Dominguez Gap Seawater Barrier Well Rehabilitation and Telemetry System	Monitor, adjust, repair and rehabilitate all barrier injection wells.	4.5	900
West Coast Basin Seawater Barrier Condition Assessment and Resulting Projects	Perform a detailed condition assessment of the barrier water supply facilities and provide project recommendations for repairs, improvements, and preventative measures. Typical projects could include repair, replacement, and/or protection of pipelines, valves, and other appurtenances.	1.5	1400
West Coast Basin Seawater Barrier Well Rehabilitation and Telemetry System	Monitor, adjust, repair and rehabilitate all barrier injection wells.	7	1620
New ABP Injection Wells	Design and Construct two new injection wells	2	360
	TOTAL	**21.5**	**7910**

Upper Santa Clara River IRWMP: Projects Ready for Prioritization Process

CLWA-1	Recycled Water Program, Phase II	Part of CLWA's Recycled Water Master Plan. Includes the planning, design and construction of CLWA's next phase of recycled water improvements, including a new storage tank and various recycled water pipelines. The recycled water pipelines will transport recycled water from the existing Valencia Water Reclamation Plant to a new recycled water storage tank and recycled water customers.
CLWA-4	Large Landscape Efficiency Improvement Program	This project will start with an education component so the on- site maintenance staff will have an understanding of the issues that lead to increased water demand and the tools to recognize and correct those issues. The site will get an ET controller with a rain shut off device and some high distribution uniformity heads with a low application rate of the correct size installed to demonstrate the maximum achievable results for the unique area. Sites will be chosen on a projected cost versus benefit basis.
CLWA-5 (submitted by VWC)	Customer Recycled Water Incentive Program	The Castaic Lake Water Agency (CLWA) is planning to expand its existing recycled water system as noted in project CLWA-1. This project would fund hook-up costs to the system providing an incentive for the end-user to use recycled water. Project would consist of providing financing to customers to pay for a licensed plumber/ contractor to connect to the recycled water system or to pay for the meter or other equipment connect to the system. Financing would be very favorable terms that could be repaid by paying potable rates for recycled water and using the difference to pay for the hook-up costs.
Santa Clarita-1	Upper Santa Clara River Arundo/Tamarisk Removal Program (SCARP) Implementation	The Ventura County Resource Conservation District (VCRCD) is implementing an environmentally beneficial project in the upper Santa Clara River watershed including its tributaries (~16,300 acres) - the Upper Santa Clara River Arundo/Tamarisk Removal Plan (SCARP). Restoration of riparian habitat, increase of water quantity, improvement of water quality, and reduction of flood/wildfire hazard will be accomplished through the removal of invasive plant species, some of which have colonized in large extents of the Upper Santa Clara River watershed. The primary species of concern are arundo (Arundo donax) and tamarisk (Tamarix spp.) The current estimate is approximately 1,500 acres. However, since the SCARP implementation is a long-term project with extensive costs and logistical issues, the VCRCD is requesting funding to cover a 10-year implementation period.
Santa Clarita-3	Discovery River Park and Conservation Area	This project will capture 100% of urban runoff and allow groundwater, now diverted or pumped off-site, to return to the river. Water will flow through planted filtration and bioswales and drain into retention basins and restored spring-fed pond consistent with historic flow patterns. No unfiltered or untreated urban water will flow into the river or off site. An overflow system will allow rainfall greater than a 50 year storm to gradually enter the river. The interpretive center will be the first of its kind, located in a suburban area, dedicated to storm water management, water conservation, and the Santa Clara River's preservation. The center and its demonstration garden represent a tool for learning about how restoration and conservation has relevance in a suburban community and will provide guidance, direction, and advocacy of sustainable water use. The ecosystem restoration plan includes integrating native planting with adapted, non-invasive species relevant to the Southern California suburban environment.
LADPW-1	Lower San Francisquito Spreading Grounds	This project consists of building a recharge facility and diversion. Flows will be redirected to the west bank and to the property adjacent to river where basins for recharge will be excavated. An earthen diversion will wash out during major storms and it will later need to be rebuilt. There may be opportunities for habitat restoration and passive recreation in the surrounding areas. Trash that washes into the river will be collected in the basins and be removed regularly.
LADPW-2	Newhall Creek In-River Spreading Grounds	The In-River Newhall Creek Spreading Grounds Project would consist of excavating a portion of the river and widening the river to provide in-stream recharge basins. Habitat could be restored along the river. The berms would be washed out during high flows and would need to be reestablished. Trash would be detained in and then removed from the outer basins.
LADPW-3	Placerita Creek Off-River Spreading Grounds	The Off-River Placerita Creek Spreading Grounds Project would consist of building a recharge facility and a diversion structure. Storm flows from the creek and from the South Fork of the Santa Clara River would be diverted into spreading basin using an earthen berm. Trash would wash into the spreading grounds and be removed post storm. The spreading grounds could incorporate habitat restoration and/or passive recreation.
LADPW-4	Santa Clara In-River Spreading Ground No. 1	The recharge basins would be constructed on the outer edges of the river and earthen levees would be constructed to direct flows to the basins from the center of the river. Storm flows would meander through the river section allowing more time for percolation. Higher flows would wash out the diversion, and it would be reconstructed post storm. The project consists of 61 acres providing 183 acre-feet of storage and water conservation benefit of 550 acre-

		feet. There are opportunities for habitat restoration in the surrounding areas. Trash would typically be detatined in the outer basins and removed post storm.
LADPW-5	Santa Clara In-River Spreading Ground No. 2	The spreading grounds would utilize earthen levees to redirect flows to the outside banks of the river. Small recharge basins and finger levees along the outer banks would slow flows and increase recharge in this stretch of the river. Trash would typically be detained in the outer basins and removed from the river post storm. High flows would wash out the low levees, and they would be rebuilt after larger storms. Adjacent areas may provide opportunities for habitat restoration and possible invasive species removal.
LADPW-6	Santa Clara Off-River Spreading Ground	The project would install a diversion in the Santa Clara River that would convey water to the adjacent property where recharge basins would be constructed. Trash would be collected in the spreading grounds. The streamflow gages would be placed to determine the amount of water that is being directed to the spreading grounds. The spreading grounds would have a total area of 53 acres and a storage capacity of 223 acre-feet. Passive recreation and habitat restoration could be incorporated into the design of the facility.
LADPW-7	SCR Rubber Dam No. 1	An air inflatable rubber dam will be constructed at the proposed location. During storm flows, the rubber dam will inflate, and the water will pond and percolate behind the rubber dam. During nonstorm weather, the rubber dam will stay deflated to allow lower flows in the river to pass without obstruction. Habitat will be restored along the river. Trash that collects behind the rubber dam will be removed.
LADPW-8	Santa Clara River Spreading Ground	This project would construct earthen levees in the river to slow down and spread flows across the river. Another levee would direct flows to an adjacent property along the south bank. The diversion levee would wash-out during higher flows to minimize damage to the proposed levees. The off-river portion of this proposal could be designed to incorporate habitat and passive recreation. Trash would be diverted and detained at the basins for post-storm removal.
LADPW-9	South Santa Clara River Rubber Dam No. 1 and Spreading Ground	An air-inflatable rubber dam will be installed utilizing the location of an existing drop structure,. During storm flows the rubber dam will inflate, and water will pond and percolate behind the rubber dam. The rubber dam will also divert the water to the proposed spreading basins which will then also percolate into the aquifers. After the water percolates, the rubber dam will slowly deflate and lay flat across the drop structure allowing lower flows in the river to pass without obstruction.
LADPW-10	South Santa Clara River Rubber Dam No. 2	This project will involve the installation of an inflatable-rubber dam to aid in conserving storm-water within the river. Since the rubber dam will be installed on an existing drop structure, the native ground surface will not be disturbed. During storm flows, the rubber dam will inflate, and water will pond and percolate behind the dam. After the water percolates, the rubber dam will slowly deflate and lay flat across the drop structure and allow lower flows in the river to pass without obstruction. Habitat could be restored along the banks of the river. Trash that washes into the river will be collected at the rubber dam and it will be removed.
LADPW-11	South Santa Clara River Rubber Dam No. 3	This project will install an air-inflatable rubber dam, utilizing the location of an existing drop structure. During storm flows the rubber dam will inflate, and water will pond and percolate behind the rubber dam. After the water percolates, the rubber dam will slowly deflate and lay flat across the drop structure. This will allow the lower flows in the river to pass without obstruction. Habitat will be restored along the banks of the river. Trash that washes into the river and collects behind the rubber dam will be removed.
LADPW-15	South Santa Clara River Rubber Dam No. 4	Utilizing the location of an existing drop structure, this project will install an air-inflatable rubber dam. During storm flows the rubber dam will inflate, and water will pond and percolate behind the rubber dam. After the water percolates, the rubber dam will slowly deflate and lay flat across the drop structure and allow lower flows in the river to pass without obstruction. Habitat will be restored along the banks of the river. The adjacent power line easement provides opportunities for habitat restoration and possible recreation. Trash will be removed at the rubber dam after storms.
LADPW-16	Upper San Francisquito Spreading Grounds	This project will construct earthen levees that will divert water to the outside limits of the creek where recharge basins will be constructed. During higer flows, the earthen levee would wash out and regular maintenance to restore the levees will be necessary. There may be opportunities for habitat restoration and passive recreation in the surrounding areas. Trash that washes into the creek will be detained at the recharge basins and will be removed.
RMC-LADPW-1	Acquisition of river channel and major tributaries for watershed protection	The purpose of this project is to preserve the natural flood plain of the upper reaches of the river for water conservation and habitat protection; preservation of recharge capacity, preservation of habitat values, protection from flooding, protection from pollution, water based recreation. By acquiring the riparian and flood plain parcels, they can remain undeveloped and therefore continue to provide watershed benefits in perpetuity.

Upper Santa Clara River IRWMP: Projects Ready for Prioritization Process

SCVSD-1	East Santa Clara River Wetlands and Recycled Water Project	The East Santa Clara River Wetlands and Recycled Water Project is a multi-phase project. Phase I is a feasibility study to investigate potential impacts that the discharge of recycled water in the eastern Santa Clara River would have on surface water and groundwater quality, as well as the creation/development of wetland and riparian habitat. The feasibility study would also identify potential recreational opportunities. A set of recommended project(s) would be developed for Phase II implementation. Phase II of the project would involve: (1) design and construction of a line to convey recycled water to the Newhall County Water District and Santa Clarita Water Division service areas and to discharge recycled water to eastern Santa Clara River; and (2) construction of wetlands using recycled water which will also provide recreational opportunities (e.g., regional walking trails, cycling paths and green belts).Phase II of the project would be implemented after completion of the Phase I studies, assuming that a recommended set of project(s) are identified as feasibile.
SCWD-2	Consolidation of Water Mutuals	This project would involve designing more efficient distribution systems within ten water mutuals and replacing existing distribution lines with new, current standard approved piping. Also, the master meter would be removed and every residence would be metered individually. This would assure good water quality throughout these areas with routine water sampling and testing and system flushing. System pressure would be more consistently maintained throughout these areas so risk of contaminating backflow events would be reduced.
VWC-2	Implemention of Santa Clarita Valley Water Conservation Strategic Plan	Reducing the amount of imported water needed to meet the long term water supply needs of the Santa Clarita Valley is an important goal of the local water purveyors an offers important state-wide benefits. Although water conservation efforts have been on-going, the local water agencies recognize that more needs to be done to elimina wasteful water use. Implementing conservation programs will require a sustained effort over many years. In order to efficiently organize a comprehensive plan, the wat agencies have retained a consultant to prepare a Water Conservation Strategic Plan for the Santa Clarita Valley. The following elements are included in the plan: 1) Spec the conservation planning goals, 2) Develop a customer profile, 3) Develop means of measuring savings, 4) Identify water conservation measures, 5) Analyze costs and benefits, 6) Selection of conservation measures, and 7) Development of an implementation plan. Those programs and measures deemed to be cost-effective will be selected for implementation by the purveyors. The Plan is expected to be completed in early 2008.

Appendix D

New County Facilities with Native Species And Drought Tolerant Landscaping Since February 15, 2007

The following projects have landscaping plans approved after February 15, 2007 which included native species and drought tolerant plants.

1. Steven Sorensen Gym & Community Bldg.
2. Vasquez Rocks Nature Center
3. Loma Alta Park Community Building Refurbishment
4. Antelope Valley Animal Shelter
5. Copper Hill Park
6. Acton Park Phase II
7. Placerita Canyon Nature Center
8. Dave March Park
9 Topanga Library
10. High Desert Health System - MACC
11. Olive View-UCLA - Psych Urgent Care Project
12. Dockweiler Youth Center
13. Acton/Agua Dulce Library
14. La Crescenta Library
15. Whittier Narrows Legg Lake Fishing Pier
16. Dan Blocker Beach
17. Will Rogers Coastline
18. Fire Station 156
19. Fire Station 104
20. Fire Station 128
21. Fire Station 132
22. Fire Station 143
23. Fire Station 150
24. Fire Station 93
25. Fire Station 136
26. Pitchess Detention Center
27. Sybil Brand Detention Center
28. Pathfinder Community Center
29. Hancock Park Water Collection & Clarification Project
30. RLANRC JPI Building Acute Care Expansion and Addition
31. RLANRC Outpatient Building
32. Ruben Ingold Slope Stabilization & Trail Improvements
33. Kenneth Hahn Driving Range Project
34. Kenneth Hahn Eastern Ridgeline Project
35. Alondra Park Pool, Water Play and Skate Park
36. Helen Keller Park Community Building and General Improvements
37. County Data Center

MINUTES OF THE BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

Sachi A. Hamai, Executive Officer-
Clerk of the Board of Supervisors
383 Kenneth Hahn Hall of Administration
Los Angeles, California 90012

At its meeting held October 16, 2007, the Board took the following action:

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Donald L. Wolfe, Director, Dean D. Efstathiou, Chief Deputy Director, Department of Public Works, and William T Fujioka, Chief Executive Officer, presented a report on the status of water conservation measures being implemented or considered by the County and on the attached report on various water supply proposals being considered by the Legislature and the Governor, with recommendations on which proposals the County should support or oppose.

After discussion, Supervisor Antonovich made the following statement:

> "The Board's discussion today addressed the need to conserve water in Southern California. It is essential that local government work to reduce our dependency on water from outside the Los Angeles basin. One measure we can adopt relatively quickly is an ordinance requiring that new development in County unincorporated communities include drought-tolerant and native landscaping. This will minimize the need for excessive watering of plants that are not native to Southern California or otherwise require a lot of water to survive.
>
> "County staff should conduct further research to identify other measures—such as drip-irrigation sprinkler systems, dual-piping for recycled water, and similar equipment—that the Board can consider adopting in the near future."

Therefore, Supervisor Antonovich made a motion that the Director of Public Works, working with the Director of Planning and County Counsel, be directed to prepare an ordinance for the Board amending Los Angeles County's Zoning Ordinance and building codes to require that drought-tolerant and native species be required in all new developments in unincorporated Los Angeles County, to be brought before the Board within 60 days; and report back to the Board at that time identifying other potential water conservation measures.

(Continued on Page 2)

47 (Continued)

In addition, Supervisor Antonovich requested that the Chief Executive Officer be directed to communicate to the State Legislature the Board's position to support a hybrid solution for the issue of water conservation, addressing both water storage and its quality and conservation.

At the suggestion of Supervisor Yaroslavsky, Supervisor Burke introduced a recommendation that Supervisor Antonovich's motion be amended to include the following in the report back:

1. Identify conservation codes already in place, how these codes are enforced, as well as possible recommendations for revisions or additions to make water conservation more effective;

2. Report on what County facilities can do to step up water conservation programs and reduce water use, particularly as it relates to landscaping and irrigation and how the County's Smart Gardening program can be adapted to County grounds and parks; and

3. Provide a status report on the Integrated Regional Water Management Plan (IRWMP) efforts and what projects have been identified to reduce water use throughout the County IRWMP region.

Supervisor Antonovich accepted Supervisor Yaroslavsky's amendment.

Further, Supervisor Burke requested that Supervisor Antonovich's motion be amended to include an update on Board Order No. 17 from January 16, 2007, on what has happened since its adoption in relation to requiring drought-resistant landscaping in all new County buildings, wherever feasible. Supervisor Antonovich accepted Supervisor Burke's amendment.

On motion of Supervisor Antonovich, seconded by Supervisor Burke, unanimously carried (Supervisor Yaroslavsky being absent) the Board took the following actions:

1. Directed the Director of Public Works, working with the Director of Planning and County Counsel, to take the following actions and report back to the Board within 60 days:

   - Prepare an ordinance for the Board amending Los Angeles County's Zoning Ordinance and building codes to require that drought-tolerant and native species be required in all new developments in unincorporated Los Angeles County, to be brought before the Board within 60 days;

(Continued on Page 3)

47 (Continued)

- Identify conservation codes already in place, how these codes are enforced, as well as possible recommendations for revisions or additions to make water conservation more effective;

- Report on what County facilities can do to step up water conservation programs and reduce water use, particularly as it relates to landscaping and irrigation and how the County's Smart Gardening program can be adapted to County grounds and parks;

- Provide a status report on the Integrated Regional Water Management Plan (IRWMP) efforts and what projects have been identified to reduce water use throughout the County IRWMP region;

- Provide an update on Board Order No. 17 from the January 16, 2007 Board meeting, on what has happened since its adoption in relation to requiring drought-resistant landscaping in all new County buildings, wherever feasible; and

- Identify any other potential water conservation measures; and

2. Directed the Chief Executive Officer to communicate to the State Legislature the Board's position to support a hybrid solution for the issue of water conservation, addressing both water storage and its quality and conservation.

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Attachment

Copies distributed:
Each Supervisor
Chief Executive Officer
County Counsel
Director of Public Works